



PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference PD53584PC00		FOR FURTHER ACTION		See Form PCT/PEA/416
International application No. PCT/EP2004/008891		International filing date (<i>day/month/year</i>) 09.08.2004		Priority date (<i>day/month/year</i>) 18.08.2003
International Patent Classification (IPC) or national classification and IPC H01Q1/24, H01Q1/52, H01Q21/28, H01Q1/38				
Applicant SONY ERICSSON MOBILE COMMUNICATIONS AB et al.				
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 4 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input type="checkbox"/> <i>sent to the applicant and to the International Bureau</i> a total of sheets, as follows:</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (<i>sent to the International Bureau only</i>) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>				
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the opinion</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>				
Date of submission of the demand 10.06.2005		Date of completion of this report 13.10.2005		
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465		Authorized Officer Marot-Lassauzaie, J Telephone No. +49 89 2399-2671 		

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INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/EP2004/008891

IAF20 Rec'd PCT/PTO 13 FEB 2006

Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
 - ☐ This report is based on translations from the original language into the following language , which is the language of a translation furnished for the purposes of:
 - ☐ international search (under Rules 12.3 and 23.1(b))
 - ☐ publication of the international application (under Rule 12.4)
 - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the **elements*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report):*

Description, Pages

1-9 as originally filed

Claims, Numbers

1-12 received on 13.06.2005 with letter of 10.06.2005

Drawings, Sheets

1/2, 2/2 as originally filed

- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing

3. ☐ The amendments have resulted in the cancellation of:
 - ☐ the description, pages
 - ☐ the claims, Nos.
 - ☐ the drawings, sheets/figs
 - ☐ the sequence listing (*specify*):
 - ☐ any table(s) related to sequence listing (*specify*):
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
 - ☐ the description, pages
 - ☐ the claims, Nos.
 - ☐ the drawings, sheets/figs
 - ☐ the sequence listing (*specify*):
 - ☐ any table(s) related to sequence listing (*specify*):

* If item 4 applies, some or all of these sheets may be marked "superseded."

**INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY**

International application No.
PCT/EP2004/008891

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1-12
	No: Claims	
Inventive step (IS)	Yes: Claims	1-12
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-12
	No: Claims	

2. Citations and explanations (Rule 70.7):

see separate sheet

**INTERNATIONAL PRELIMINARY
REPORT ON PATENTABILITY
(SEPARATE SHEET)**

International application No.

PCT/EP2004/008891

Re Item V

**Reasoned statement with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement**

Reference is made to the following documents:

- D1: WO 02/05380 A (ALLGON AB ;DONGHUI LIU (SE); FALKEN HENRIK (SE);
RUTFORS TOMAS (SE) 17 January 2002 (2002-01-17)
- D2: EP-A-1 317 116 (SAGEM) 4 June 2003 (2003-06-04)
- D3: US-B1-6 326 927 (HILL ROBERT ET AL) 4 December 2001 (2001-12-04)
- D4: US 2002/158803 A1 (COMMENS MATTHEW H ET AL) 31 October 2002
(2002-10-31)
- D5: US-B1-6 201 501 (ARKKO AIMO ET AL) 13 March 2001 (2001-03-13)

1. Documents D2-D4 are the closest prior art to the subject-matter of claim 1, and show antennas with two flat elements and a component disposed between the two elements. For obvious reasons, the component will be provided on a section making small contributions to the main antenna currents (to avoid disturbing it). For example in D2, the "one component (24, 26, 28, 30)" is placed between the plates of an inverted-F antenna. As to the claimed "small contribution to the antenna current", the applicant may refer to e.g. § [0021] of D2.

However, in D2-D4 the "one component" is a speaker or a camera (D2), electronic components (D3) or a low noise amplifier (D4), thus novelty must be acknowledged for claims 1-12 of the application over D2-D4, because they specify that the "one component" is an antenna. As to inventive step, the examiner must also recognise that an antenna could not be used as an "extra component" in either of D2, D3 or D4, because the "extra component" is placed in a part screened from the outside by the main antenna.

2. Document D1 fails to disclose an antenna with a "second antenna element stretching essentially along a side of the first antenna element".